

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claim 1 (previously presented) A computer readable recording medium recording thereon a program, which causes a computer to execute:

 a process operation for successively storing a plurality of print commands into a memory allocated with a certain size, wherein said plurality of print commands are converted from print data relating to a single print job;

 a process operation for successively reading each of said print commands from said memory to transmit said print command to a printing apparatus; and

 a process operation for rendering an area of said memory, where one of said print commands has been stored, rewritable after the one of said print commands is read from the memory, so that another print command converted from said print data can be stored in said area.

Claim 2 (original): A recording medium as claimed in claim 1 wherein:

 said recording medium records thereon a program for causing said computer to execute a process operation by which data for controlling read/write operation of a print command to said memory is produced, and said control data is stored into another storage area of said memory.

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Claim 3 (original): A recording medium as claimed in claim 2 wherein:
said recording medium records thereon a program containing a size of said memory and a
data amount presently stored in said memory as said control data.

Claim 4 (original): A recording medium as claimed in claim 2 wherein:
said recording medium records thereon a program containing information indicative of a
position within said memory where said print command is stored as said control data.

Claim 5 (original): A recording medium as claimed in claim 1 wherein:
said recording medium records thereon a program for causing the computer to further
execute;
a process operation for acquiring an index indicative of a stored amount of said print
command within said memory; and
a process operation for stopping a process operation for storing said print command into
the memory when said index is larger than, or equal to a first preset threshold value.

Claim 6 (original): A recording medium as claimed in claim 5 wherein:
said recording medium records thereon a program for causing the computer further to
execute:

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a process operation for stopping a process operation for reading said stored print command when said index is smaller than, or equal to a second preset threshold value.

Claim 7 (previously presented): A computer readable recording medium recording thereon a program, which causes a computer to execute:

a process operation for successively storing a plurality of print commands converted from print data into a memory allocated with a certain size;

a process operation for successively reading each of said print commands from said memory to transmit said print command to a printing apparatus; and
a process operation for rendering an area of said memory, where one of said print commands has been stored, rewritable after the one of said print commands is read from the memory, so that another print command converted from said print data can be stored in said area,

wherein:

said recording medium records thereon a program for causing the computer to further execute:

a process operation for acquiring an index indicative of a stored amount of said print command within said memory; and

a process operation for stopping a process operation for reading said stored print command when said index is smaller than, or equal to a second preset threshold value.

Claim 8 (previously presented): A computer readable recording medium recording thereon a program, which causes a computer to execute:

 a process operation for successively storing a plurality of print commands converted from print data into a memory allocated with a certain size;

 a process operation for successively reading each of said print commands from said memory to transmit said print command to a printing apparatus; and

 a process operation for rendering an area of said memory, where one of said print commands has been stored, rewritable after the one of said print commands is read from the memory, so that another print command converted from said print data can be stored in said area,

wherein:

 said recording medium records thereon a program for causing the computer further to execute:

 a process operation for storing said converted print command into a file having such a nature that a print command is saved until a print job is ended, when a print job contains an instruction for printing plural sheets of the same page.

Claim 9 (original): A recording medium as claimed in claim 8 wherein:

 said recording medium records thereon a program for causing the computer further to execute:

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a process operation for storing, when said print command cannot be saved in said file, the not-yet-saved print command into said memory.

Claim 10 (previously presented): A printing control method for controlling writing and transmitting of a print command, which comprises:

a process operation for successively storing a plurality of print commands into a memory allocated with a certain size, wherein said plurality of print commands are converted from print data relating to a single print job;

a process operation for successively reading each of said print commands from said memory to transmit said print command to a printing apparatus; and

a process operation executed for rendering an area of said memory, where one of said print commands has been stored, rewritable after the one of said print commands is read from the memory, so that another print command converted from said print data can be stored in said area.

Claim 11 (previously presented): A printing control method for controlling writing and transmitting of a print command, which comprises:

a process operation for successively storing a plurality of print commands converted from print data into a memory allocated with a certain size;

a process operation for successively reading each of said print commands from said memory to transmit said print command to a printing apparatus;

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a process operation executed for rendering an area of said memory, where one of said print commands has been stored, rewritable after the one of said print commands is read from the memory, so that another print command converted from said print data can be stored in said area;

a process operation for acquiring an index indicative of a stored amount of said print command within said memory; and

a process operation for stopping, when said index is larger than, or equal to a first preset threshold value, such a process operation for storing said print command into the memory.

Claim 12 (original): A printing control method as claimed in claim 11 which further comprises:

a process operation for stopping, when said index is smaller than, or equal to a second preset threshold value, such a process operation for reading said stored print command.

Claim 13 (previously presented): A printing control method for controlling writing and transmitting of a print command, which comprises:

a process operation for successively storing a plurality of print commands converted from print data into a memory allocated with a certain size;

a process operation for successively reading each of said print commands from said memory to transmit said print command to a printing apparatus;

a process operation executed for rendering an area of said memory, where one of said print commands has been stored, rewritable after the one of said print commands is read from the memory, so that another print command converted from said print data can be stored in said area;

a process operation for storing, when a print job contains an instruction for printing plural sheets of the same page, said converted print command into a file having such a nature that a print command is saved until a print job is ended.

Claim 14 (original): A printing control method as claimed in claim 13 which further comprises:

a process operation for storing, when said print command cannot be saved in said file, said not-yet-saved print command into said memory.

Claim 15 (currently amended): A printing control apparatus for controlling writing/transmitting operations of a print command, comprising:

means which successively stores a plurality of print commands converted from print data into a memory allocated with a certain size, wherein said plurality of print commands are converted from print data relating to a single print job;

means which successively reads each of said print commands from said memory to transmit said print command to a printing apparatus; and

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means which renders an area of said memory, where said print command has been stored, rewritable so that another print command converted from said print data can be stored in said area.

Claim 16 (currently amended): ~~A printing control apparatus as claimed in claim 15, further comprising:~~ A printing control apparatus for controlling writing/transmitting operations of a print command, comprising:

means which successively stores a plurality of print commands converted from print data into a memory allocated with a certain size;

means which successively reads each of said print commands from said memory to transmit said print command to a printing apparatus;

means which renders an area of said memory, where said print command has been stored, rewritable so that another print command converted from said print data can be stored in said area,

means which acquires an index indicative of a stored amount of said print command within said memory; and

means which stops, when said index is larger than, or equal to a first preset threshold value, such a process operation for storing said print command into the memory.

Claim 17 (original): A printing control apparatus as claimed in claim 16, further comprising:

means which stops, when said index is smaller than, or equal to a second preset threshold value, such a process operation for reading said stored print command.

Claim 18 (currently amended): ~~A printing control apparatus as claimed in claim 15, further comprising:~~ A printing control apparatus for controlling writing/transmitting operations of a print command, comprising:

means which successively stores a plurality of print commands converted from print data into a memory allocated with a certain size;

means which successively reads each of said print commands from said memory to transmit said print command to a printing apparatus;

means which renders an area of said memory, where said print command has been stored, rewritable so that another print command converted from said print data can be stored in said area; and

means which stores, when a print job contains an instruction for printing plural sheets of the same page, said converted print command into a file having such a nature that a print command is saved until a print job is ended.

Claim 19 (original): A printing control apparatus as claimed in claim 18, further comprising:

means which stores, when said print command cannot be saved in said file, the not-yet-saved print command into said memory.

Claim 20 (original): A computer readable recording medium for recording thereon a program for causing a computer to execute:

a converting/storing process operation for converting print data into a print command having a predetermined format and for storing the converted print command into a first memory;

a first stopping process operation for stopping said converting/storing process operation in the case that a ratio of a print command amount stored into said first memory to a storage capacity of said first memory is larger than, or equal to a first threshold value;

a reading/storing process operation for reading said stored print command and for storing said read print command into a second memory;

a transmitting process operation for transmitting the print command stored into said second memory to a printing apparatus;

a releasing process operation for executing a process operation such that a storage area of said first memory from which said print command is read is rewritable;

a second stopping process operation for stopping said reading/storing process operation in the case that a ratio of a print command amount stored into said first memory to the storage capacity of said first memory is smaller than, or equal to a second threshold value; and

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a third stopping process operation for stopping said reading/storing process operation in such a case that a ratio of a print command amount stored into said second memory to a storage capacity of said second memory is larger than, or equal to a third threshold value.

Claim 21 (original): A printing control method comprising:

a converting/storing step for converting print data into a print command having a predetermined format and for storing said converted print command into a first memory;

a first stopping step for stopping said converting/storing step in the case that a ratio of a print command amount stored into said first memory to a storage capacity of said first memory is larger than, or equal to a first threshold value;

a reading/storing step for reading said stored print command and for storing said read print command into a second memory;

a transmitting step for transmitting the print command stored into said second memory to a printing apparatus;

a releasing step for executing a process operation such that a storage area of said first memory from which said print command is read is rewritable;

a second stopping step for stopping said reading/storing step in the case that a ratio of a print command amount stored into said first memory to the storage capacity of said first memory is smaller than, or equal to a second threshold value; and

a third stopping step for stopping said reading/storing step in such a case that a ratio of a print command amount stored into said second memory to a storage capacity of said second memory is larger than, or equal to a third threshold value.

Claim 22 (original): A printing control apparatus comprising:

converting/storing means which converts print data into a print command having a predetermined format and for storing said converted print command into a first memory;

first stopping means which stops said converting/storing means in the case that a ratio of a print command amount stored into said first memory to a storage capacity of said first memory is larger than, or equal to a first threshold value;

reading/storing means which reads said stored print command and for storing said read print command into a second memory;

transmitting means which transmits the print command stored into said second memory to a printing apparatus;

releasing means which executes a process operation such that a storage area of said first memory from which said print command is read is rewritable;

second stopping means which stops said reading/storing means in the case that a ratio of a print command amount stored into said first memory to the storage capacity of said first memory is smaller than, or equal to a second threshold value; and

third stopping means which stops said reading/storing means in such a case that a ratio of a print command amount stored into said second memory to a storage capacity of said second memory is larger than, or equal to a third threshold value.

Claim 23 (currently amended): A printing control apparatus, comprising:

a memory; and

a control circuit,

wherein said control circuit successively stores a plurality of print commands converted from print data into said memory, wherein said plurality of print commands are converted from print data relating to a single print job; and

wherein said control circuit successively reads each of said print commands from said memory and transmits said print command to a printing apparatus, and

wherein said control circuit renders an area of said memory, where said print command has been stored, rewritable so that another print command converted from said print data can be stored in said area.

Claim 24 (currently amended): The printing control apparatus as claimed in claim 23—A printing control apparatus, comprising:

a memory; and

a control circuit,

wherein said control circuit successively stores a plurality of print commands converted from print data into said memory; and

wherein said control circuit successively reads each of said print commands from said memory and transmits said print command to a printing apparatus,

wherein said control circuit renders an area of said memory, where said print command has been stored, rewritable so that another print command converted from said print data can be stored in said area, and

wherein: said control circuit acquires an index indicative of a stored amount of said print command within said memory; and

 said control circuit stops storing said print command into the memory when said index is larger than, or equal to a first preset threshold value.

Claim 25 (previously presented): A printing control apparatus as claimed in claim 24, wherein:

 said control circuit stops reading said stored print command when said index is smaller than, or equal to a second preset threshold value.

Claim 26 (currently amended): ~~A printing control apparatus as claimed in claim 23.~~ A printing control apparatus, comprising:

a memory; and

a control circuit,

wherein said control circuit successively stores a plurality of print commands converted from print data into said memory; and

wherein said control circuit successively reads each of said print commands from said memory and transmits said print command to a printing apparatus,
wherein said control circuit renders an area of said memory, where said print command has been stored, rewritable so that another print command converted from said print data can be stored in said area, and

wherein: said control circuit stores said converted print command into a file that saves a print command until a print job is ended, when a print job contains an instruction for printing plural sheets of the same page.

Claim 27 (previously presented): A printing control apparatus as claimed in claim 26, wherein:

 said control circuit stores a not-yet-saved print command into said memory, when said print command cannot be saved in said file.

Claim 28 (previously presented): A printing control apparatus comprising:
 a first memory;

 a second memory; and

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a control circuit,

wherein said control circuit converts print data into print commands having a predetermined format and stores said converted print commands into said first memory;

wherein said control circuit stops storing converted print commands when a ratio of a print command amount stored into said first memory to a storage capacity of said first memory is larger than, or equal to a first threshold value;

wherein said control circuit reads said stored print commands and stores said read print commands in said second memory;

wherein said control circuit transmits said read print commands stored in said second memory to a printing apparatus;

wherein said control circuit releases a storage area of said first memory which stores the converted print commands, after the converted print commands have been read, such that the storage area becomes rewritable;

wherein said control circuit stops storing said read print commands into said second memory when a ratio of a print command amount stored into said first memory to the storage capacity of said first memory is smaller than, or equal to a second threshold value; and

wherein said control circuit stops storing said read print commands into said second memory when a ratio of a print command amount stored into said second memory to a storage capacity of said second memory is larger than, or equal to a third threshold value.